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# *Project Integration Management*

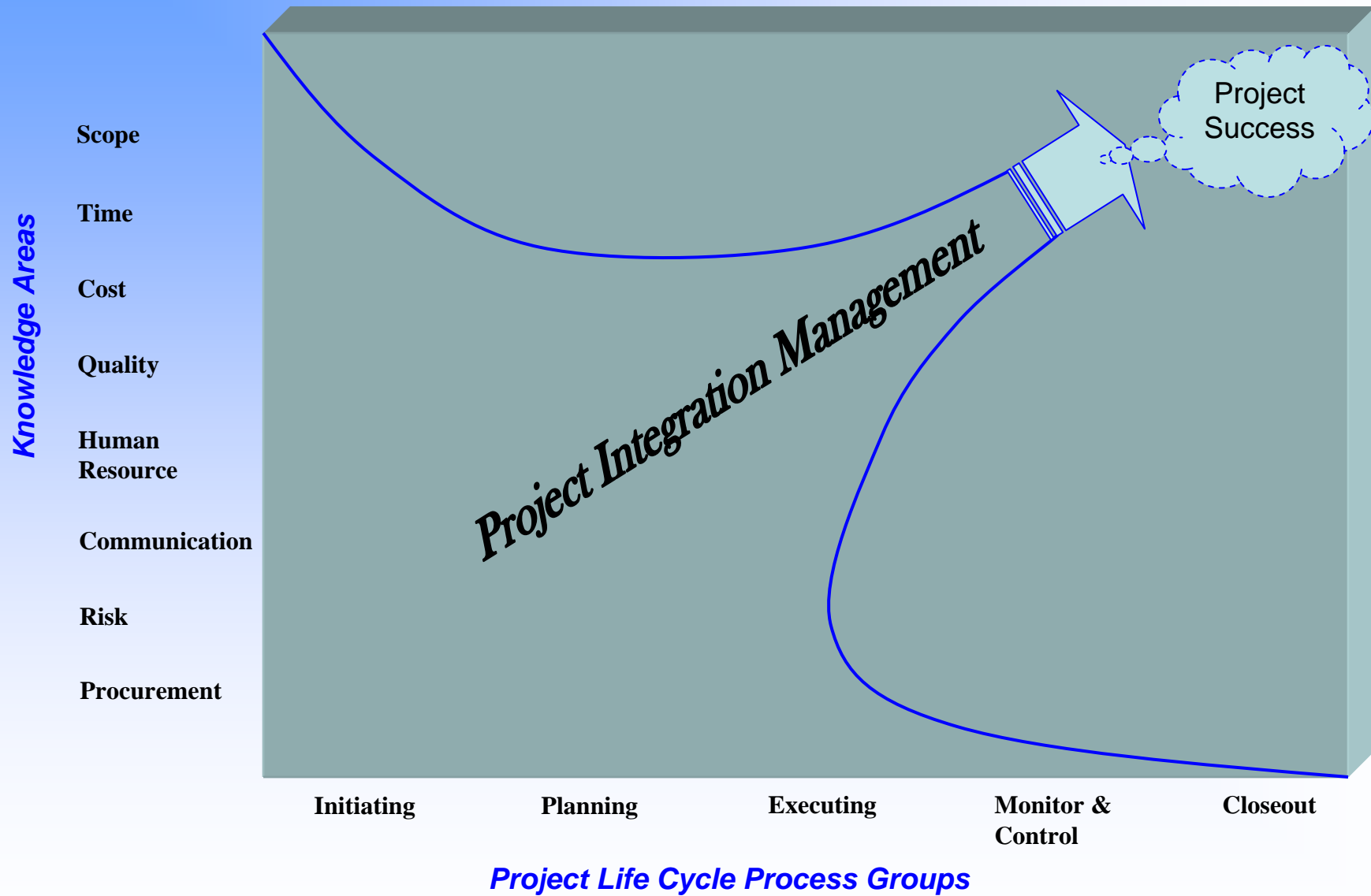
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*S. Kenneth Merrill, PMP*

*November 21, 2007*

*Project Management Tutorial Series*

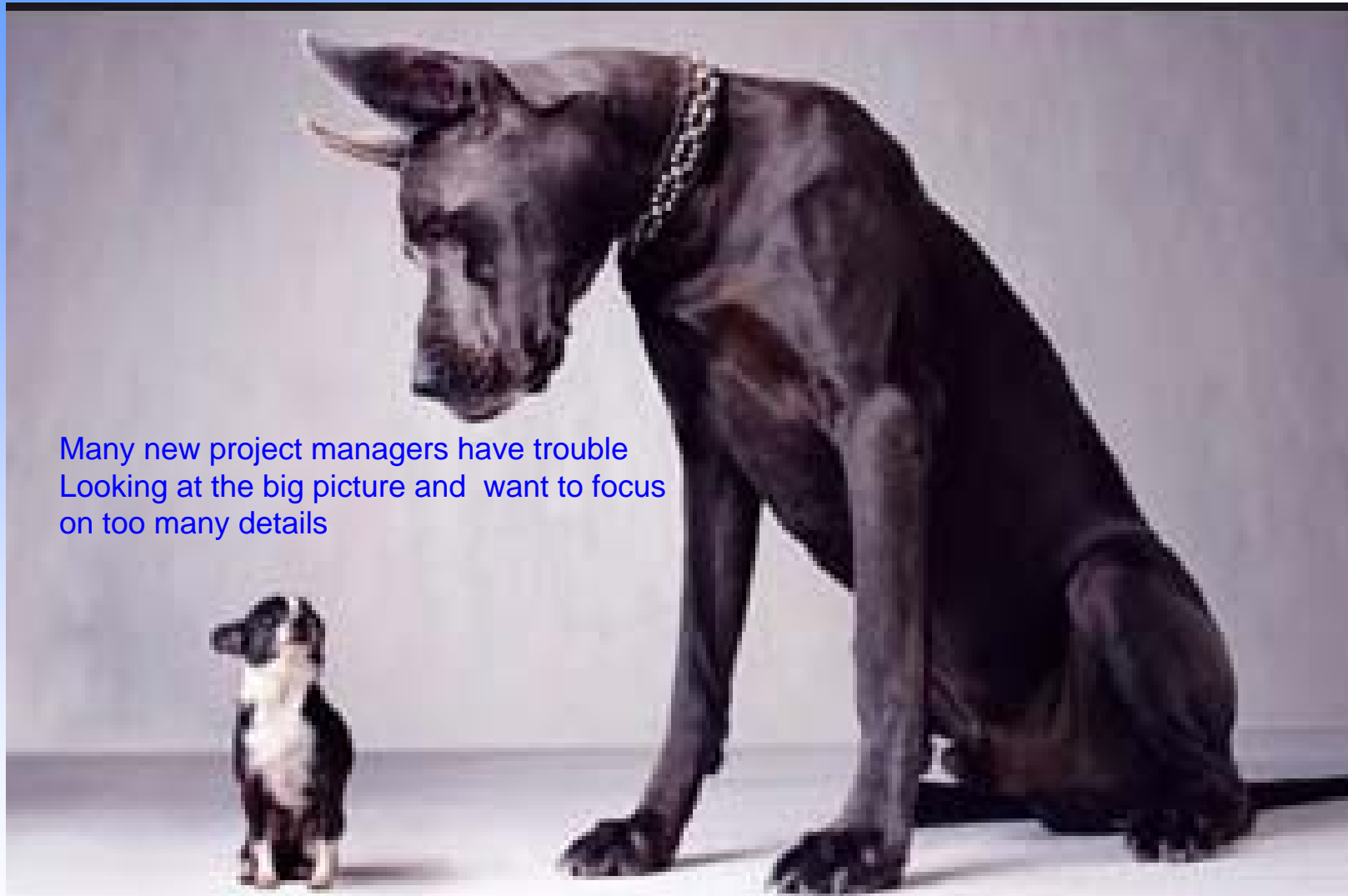
# Project Management Tutorial Series



## **Project Integration Management**

### Discussion Outline:

- **Introduction** – Project Integration Management Overview
- **Discussion** – PM Knowledge Areas: Risk Conditions and Consequent Risk Events
- **Scaleable Methodology** - Project Integration Management



Many new project managers have trouble  
Looking at the big picture and want to focus  
on too many details

**Project Integration Management can be INTIMIDATING**

- **Introduction** – Project Integration Management  
Brief Overview

## **The Integrative Project Management Process**

- ❖ Within the PMBOK® Guide project management processes are presented as discrete components with well defined interfaces while, in practice, they overlap and interact in ways that are not detailed in the guide.
- ❖ Most experienced PM practitioners know there is no single way to manage a project. They apply their PM knowledge, skills, and processes in different order and degree of rigor as required to successfully complete their project.
- ❖ Project Management is an iterative process.

## **What is Project Integration Management**

**“The processes and activities needed to integrate the various elements of project management, which are identified, defined, combined, unified, and coordinated within the Project Management Process Groups.”**

*PMBOK® Guide – Third Edition*

# Project Management Tutorial Series

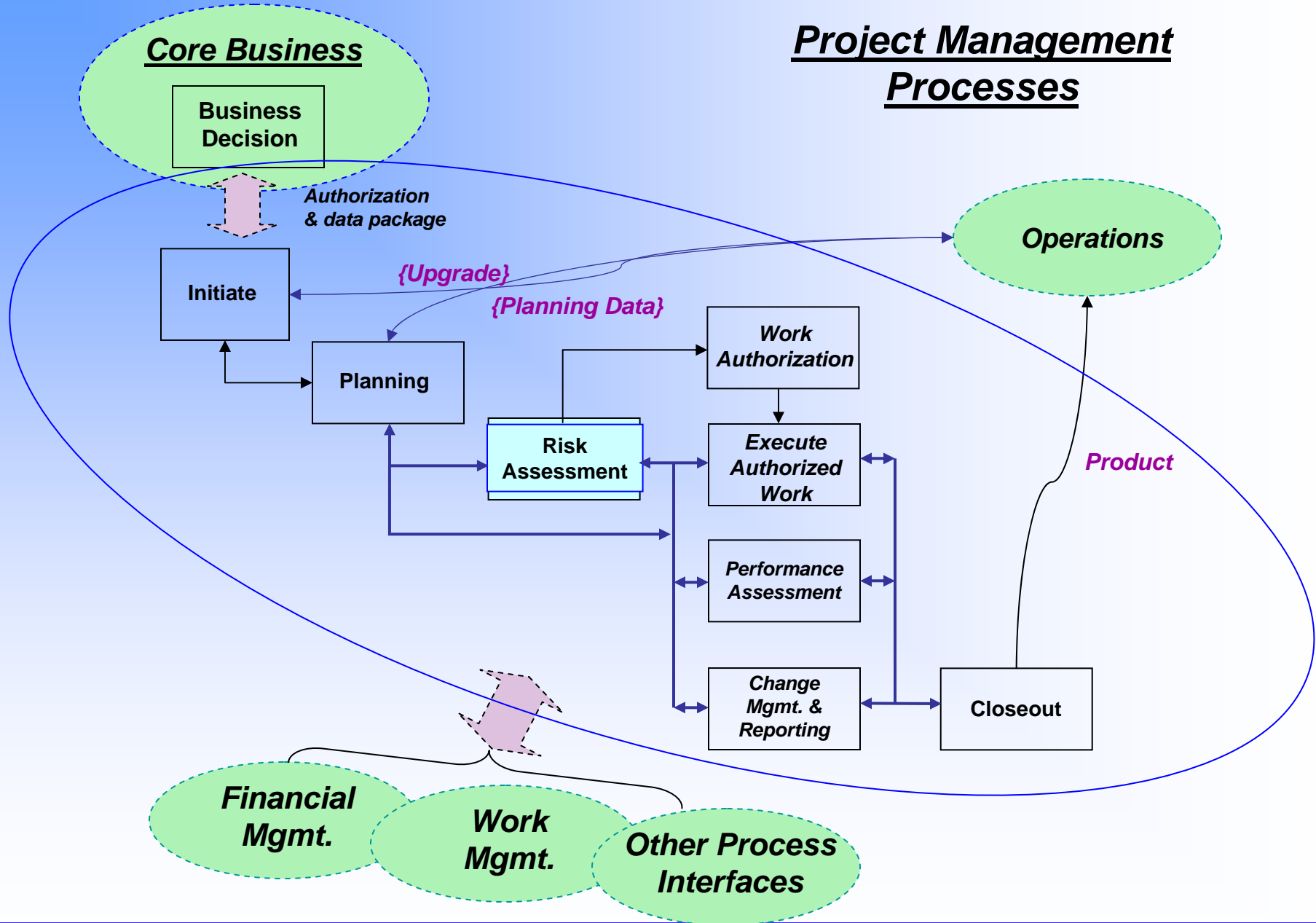
## Mapping

- 44 PM processes into
- 5 PM process groups & 9 PM Knowledge Areas

Process Groups						
	Initiating	Planning	Executing	Monitoring & Controlling	Closing	
Knowledge Areas	<b>Integration</b>	Develop Project Charter	Develop Project Management Plan	Direct and Manage Project Execution	Monitor & Control Project Work	Close Project
		Develop Preliminary Project Scope Statement			Integrated Change Control	
	<b>Scope</b>		Scope Planning		Scope Verification	
			Scope Definition		Scope Control	
			Create WBS			
	<b>Time</b>		Activity Definition		Schedule Control	
			Activity Sequencing			
			Activity Resource Estimating			
			Schedule Development			
	<b>Cost</b>		Cost Estimating		Cost Control	
			Cost Budgeting			
	<b>Quality</b>		Quality Planning	Perform Quality Assurance	Perform Quality Control	
	<b>Human Resources</b>		Human Resource Planning	Acquire Project Team	Manage Project Team	
				Develop Project Team		
	<b>Communications</b>		Communication Planning	Information Distribution	Performance Reporting	
					Manage Stakeholders	
	<b>Risk</b>		Risk Management Planning		Risk Monitoring and Controlling	
			Risk Identification			
			Qualitative Risk Analysis			
			Quantitative Risk Analysis			
	<b>Procurement</b>		Plan Purchases and Acquisitions	Request Seller Responses	Contract Administration	Contract Closure
			Plan Contracting	Select Sellers		

PMBOK® Guide Table 3-45 page 70

**Project Management Processes**



Discussion

***PM Knowledge Areas: Risk Condition  
and Consequent Risk Events***

## Discussion – PM Knowledge Areas: Risk Condition and Consequent Risk Events

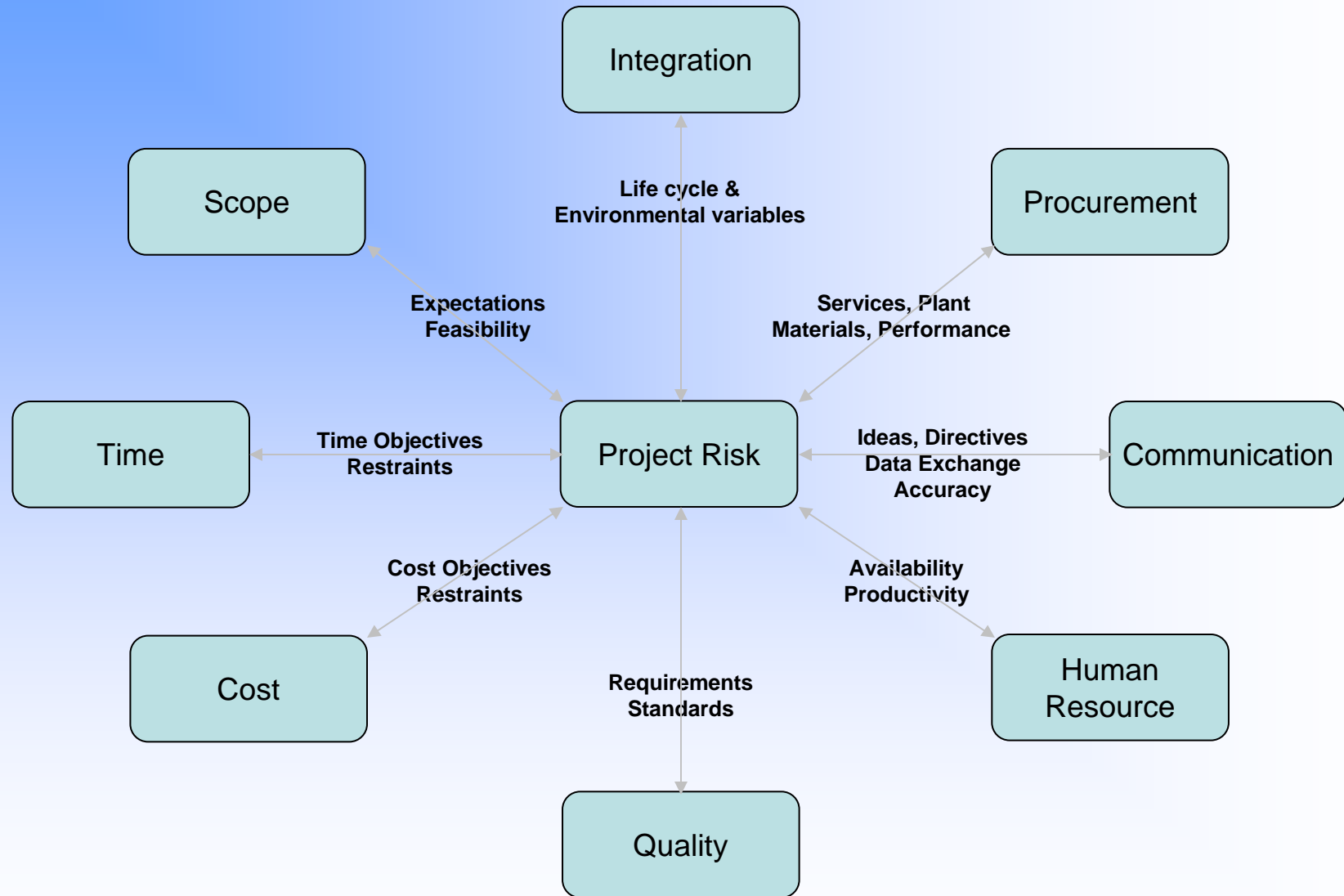
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**The need for integration in project management becomes quite evident in situations where individual processes interact.**

- The **knowledge areas** of project Management
  - ✓ Are all interrelated – hence must be managed collectively
  - ✓ Example: Scope change involves as a minimum cost, schedule, human resources and risk management
- Risk management, it
  - ✓ Must be allied to all knowledge areas – scope, time, cost, etc.

**The following slides provides examples, but first lets examine the “risk wheel**

***Review the Risk Wheel for Relationship Failure***



## Project Integration Management

- Risk Conditions
  - ✓ Inadequate planning, integration or resource allocation
  - ✓ Lack of clear objectives and key success indicators\*
  - ✓ Lack of thorough project management
  - ✓ Inadequate or lack of life cycle project reviewers
  
- Consequent Risk Event
  - ✓ Absence or late start of integrated project management
  - ✓ Classic project management failure and chaos
  - ✓ Accidents
  - ✓ Project stop work

\* Reduces the probability of project success

## Scope Management

- Risk Conditions
  - ✓ Inadequate requirements assessment
  - ✓ Insufficient planning – lack of lead time
  - ✓ Poor definition of scope breakdown and work packages
  - ✓ Scope changes without corresponding time and budget changes
  
- Consequent Risk Event
  - ✓ Changes in scope “to make things work”
  - ✓ Unbudgeted work and rework
    - Leads to serious cost and time overruns -

## Time Management

- Risk Conditions
  - ✓ Poor estimating of time or resource requirements
  - ✓ Poor management of critical path, and/or float
  - ✓ Excessive overtime
  
- Consequent Risk Event
  - ✓ Specific delays: skills or material shortages, workforce without motivation, strikes
  - ✓ Need for acceleration
  - ✓ Earlier release of competitive product
  - ✓ Lost competitive advantage and project aborted

## Cost Management

- Risk Conditions
  - ✓ Estimating errors/omissions
  - ✓ No investigation of predictable problems
  - ✓ Over-optimistic productivity assumptions
  - ✓ Lack of cost, change or contingency control
- Consequent Risk Event
  - ✓ Serious budget overruns
  - ✓ Money runs out and project aborted

## Quality Management

- Risk Conditions
  - ✓ Inconsistent, incomplete or unclear definition of quality requirements
  - ✓ Poor attitude toward quality
  - ✓ Substandard design/materials/workmanship
  - ✓ Inadequate quality assurance/control program
  
- Consequent Risk Event
  - ✓ Rejection of work
  - ✓ Uncompetitive product quality
  - ✓ Product performance failure

## Human Resource Management

- Risk Conditions
  - ✓ Inappropriate organizational structure or allocation of responsibility
  - ✓ Inferior leadership or vacillating management style
  - ✓ Absence of motivation and accountability
  - ✓ Conflict not managed
  - ✓ Incompetent workers
  
- Consequent Risk Event
  - ✓ General absence of team effort
  - ✓ Organizational failure, terminations, strikes

## Communication Management

- Risk Conditions
  - ✓ Carelessness in planning and in communicating plans
  - ✓ Lack of understanding and improper handling of complexity
  - ✓ Inadequate consultation with stakeholders - *all*
- Consequent Risk Event
  - ✓ Unreliable or incorrect information leading to wrong action or inaction
  - ✓ Failed stakeholder expectations

## Risk Management

- Risk Conditions
  - ✓ Ignoring risk or “assuming it away”
  - ✓ Unclear assignment of risk responsibility – internal team, contractors, and third parties
  - ✓ Reluctance to accept risk responsibility ownership
  - ✓ Poor insurance management
  
- Consequent Risk Event
  - ✓ Avoidable risk events occur
    - With consequent delays and cost overruns
    - Damage to quality
    - Damage to Institutional Brand

## Procurement Management

- Risk Conditions
  - ✓ Uncompetitive purchasing
  - ✓ Unenforceable contract clauses, conditions
  - ✓ Financial weakness of contracting parties
  - ✓ Adversarial and non-cooperative contractual relations
  - ✓ Inappropriate contractual assignment of risk
  
- Consequent Risk Event
  - ✓ Claims litigation, settlements
  - ✓ Contractor incapacity, insolvency, failure

**Project Integration Management**  
*- Scalable Methodology -*

## **The Integrative Project Management Process**

- Develop Project Charter
- Develop Preliminary Project Scope Statement
- Develop Project Management Plan
- Direct and Manage Project Execution
- Monitor and Control Project Work
- Integrated Change Control
- Close Project

## Project Integration Management - Scaleable Methodology

	Priority			
Element	4 <i>Small investment, informal schedule goals, low organizational priority and visibility.</i>	3 <i>Moderate investment, definite schedule target, some organizational priority and visibility.</i>	2 <i>Significant investment, important schedule goals, medium organizational priority and visibility.</i>	1 <i>Major investment, critical schedule goals, substantial organizational priority and visibility, significant technical and cost risks.</i>
<b>Project Charter</b>	Prepare a one page memo of understanding between the sponsor and the PM outlining project objectives, resources, commitments, and constraints.	Identify quantifiable objectives, cost and schedule targets; outline staffing commitments, funding, and assets.	Define specific performance goals and cost and schedule thresholds; describe PM authority and organizational commitment.	Define PM responsibilities and authority; describe specific objectives and make express commitments of staffing, funds, and assets.
<b>Stakeholder</b>	Identify project stakeholders (customers, sponsors, users, etc.) and bulletize their interests and objectives on one page; review the project plan to ensure stakeholder satisfaction will be achieved.	Map stakeholder interests to specific initiatives to ensure satisfaction; develop, maintain, and post team success metrics; plan proactive stakeholder communications.	Prepare stakeholder management plan, and allocate staff and budget to periodic reassessments and corrective actions; focus specific initiatives to achieve stakeholder satisfaction.	Prepare and update a structured stakeholder analysis supporting a stakeholder management plan; map to the quality plan, risk management plan, and to project reporting initiatives.
<b>Project Plan</b>	Summarize project objectives, approach, time constraints, cost estimates, and staffing plan; ensure these fit together and are realistic and achievable; define milestones; and link tasks to owners and deliverables.	Employ planning process to build team ownership and facilitate peer review; apply systematic methods to assess cost and schedule realism; plan more heavily in risk areas; apply all PM principles in plan.	Prepare a plan that links the requirements, task plans, timelines, cost estimates, staffing, deliverables, and test plan; make sure cost, scope, and time are bounded; define success criteria for milestones.	Produce an integrated family of documents defining all project activities and disciplines; plan for mapping and traceability throughout major documents; systematically address all <u>PMBOK</u> areas.
<b>Project Management Methodology</b>	Apply sound <u>project management principles</u> such as: clearly documented requirements, a realistic plan, project baseline controls, and periodic reviews; maintain a PM notebook.	Include outline of proposed project management methodology in project plan document; identify vital PM systems and procedures.	Document PM approach, including baseline management, reviews, data collection, project metrics, and control responsibilities; monitor and report status of PM implementation.	Prepare project management plan describing methodology, reviews, baseline controls, and organizational roles and responsibilities; establish metrics to track integrity of PM disciplines.

*Project Management Scalable Methodology Guide*  
James R. Chapman

## **The Elevator Speech**

- ❖ Project Integration Management is a key concept and skill that is the hallmark of PMI and the project management professional. It includes the processes that are required to ensure that all the various elements of a project plan are properly coordinated. The key is coordination and integration. Using Project Integration Management, all the pieces of a complex project plan fit together. This is how we balance time, cost and quality. Where do you think we would be without Project Integration Management?